

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion is respectfully requested.

Claim 20 is pending in the application; Claim 20 is amended; and Claims 1-19, 21-22, 24 and 26-63 are canceled without prejudice or disclaimer by the present amendment. Claims 23 and 25 were previously canceled. Support for the amended claims can be found in the original specification, claims and drawings.¹ Thus, no new matter is presented.

In the outstanding Official Action, the specification was objected to for failing to provide proper antecedent basis for the claimed subject matter; Claims 20-22 were rejected under 35 U.S.C. §103(a) as unpatentable over Newlin et al. (U.S. Patent 5,877,821, herein “Newlin”) in view of Mochizuki et al. (U.S. Patent 6,044, 248, herein “Mochizuki”); and Claims 24, 27 and 28 were rejected under 35 U.S.C. §102(b) as anticipated by Newlin.

Regarding the objection to the specification for failing to provide proper antecedent basis for the term “acoustic control signal” used in the claims, this feature has been removed from the claims and supplanted with the phrase “DTMF control signal”, support for which can be found throughout the original specification..

Accordingly, Applicants respectfully request that the objection to the specification be withdrawn.

The Official Action rejected Claims 20-22 under 35 U.S.C. §103 as unpatentable over Newlin in view of Mochizuki. The Official Action cites Newlin as disclosing the claimed invention with the exception of the acoustic control signal being transmitted in the form of a sound wave. The Official Action cites Mochizuki as disclosing this claim limitation and states that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Newlin by implementing the transmission of

¹ Specification, at Figs. 6-13, and page 27, line 13-page 29, line 8.

acoustic control signals to be transmitted as a sound wave for the purpose of improving the transmission of control signals to a particular device.² Applicant respectfully submit that amended Claim 20 states novel features not taught or rendered obvious by Newlin and/or Mochizuki.

Amended Claim 20 relates to a DTMF control signal system including a television signal transmitter configured to transmit the DTMF control signal together with an audio signal to a television signal receiver. The television signal receiver then outputs the DTMF control signal as a sound wave, which is detected by an audio/video recording/reproduction apparatus. The detected DTMF sound wave is then decoded to determine a control command corresponding to the received DTMF signal and the audio/video recording/reproduction apparatus is controlled based on the determined control command.

As depicted in Figs. 10, 12 and 13, the DTMF tone is output by the television signal receiver and detected by the DTMF tone decoder (81), which then transmits the detected DTMF control signal to the microcomputer (82). The microcomputer (82) then compares the detected signal against a storage block (82) containing a table indicating a correspondence between specific control instructions and DTMF signal strings. The recording/reproducing apparatus is then controlled to perform one of the operations depicted in Fig. 13, specifically the recording/reproduction device either powers up/down or starts/stops a recording operation.

Turning to the applied references, Newlin describes a multimedia input and control apparatus, specifically for video conferencing.³ Newlin describes a processor (143) provided for the reception or entry of a plurality of control signals, which may include control signals from a telephone (185) such as off-hook, on-hook, flash, various DTMF tones, or other programs or program signals, such as those from a personal computer (190). Newlin further

² Office Action of March 1, 2005, the paragraph bridging pages 3-4.

³ Newlin at col. 2, lines 56-61.

describes that when the control signals are in the form of DTMF tones the signals are processed so that the corresponding control signal is able to be process by the processor (143) in the form of a digital control signal.⁴ Therefore, the DTMF tones are received by the processor (143) which issues control commands via digital control signals.⁵

Mochizuki describes a selective call receiver for displaying messages that include graphical images. Mochizuki describes that a transmission function may be implemented using a transmission data generator (111), a DTMF converter (112), and a speaker (113).⁶ Specifically, when receiving an edited transmission message from the control processor (104) the transmission data generator (111) produces transmission data including a calling number and the edited transmission message and outputs it to the DTMF converter (112) which converts the transmission data into a tone signal suitable for the telephone line in well-known DTMF technology.⁷ This tone signal is then converted to a sound wave by the speaker (113) and then converted into an electric signal with a microphone of a television set and is transmitted to a destination receiver through the telephone network in the control base station.⁸

As noted in MPEP §2143, the requirements for a *prima facie* case of obviousness are (1) there must be some suggestion or motivation in the references themselves when the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine the reference teachings, (2) there must be a reasonable expectation of success, and (3) the prior art reference must teach or suggest all the claim limitations. It is respectfully submitted that the outstanding Official Action fails to make a *prima facie* case of obviousness, because the applied references, neither alone nor in combination, teach or

⁴ Newlin at col. 5, lines 17-27.

⁵ Newlin, at col. 3, lines 50-59.

⁶ Mochizuki at col. 4, lines 11-14.

⁷ Id. at col. 4, lines 14-21.

⁸ Id. at col. 4, lines 21-27.

suggest all the claim limitations, and there is no suggestion or motivation to combine the reference teachings.

Amended Claim 20 recites, *a television signal transmitter configured to specify a control instruction to be transmitted...which generates a DTMF control signal based on the control instruction... and outputs the DTMF control signal superimposed on a audio signal to be transmitted*. Applicants respectfully submit that Newlin and/or Mochizuki neither alone nor in combination teach or suggest the above-noted features of amended Claim 20.

As discussed above, both Newlin and Mochizuki, respectively, describe methods for initiating conference calls, and sending messages between mobile devices. Thus, neither Newlin nor Mochizuki, alone or in combination, teach or suggest a television signal transmitter which specifies a control instruction, generates a DTMF tone corresponding to this control instruction and transmits the DTMF control instruction together with a audio signal to be transmitted to a television signal receiver, as recited in Claim 20, and described in Fig. 6.

Further, amended Claim 20 recites, *a television receiver including a DTMF signal receiver ...a means for extracting the DTMF control signal and...a speaker configured to output the extracted DTMF control signal as a sounds wave*. Applicants respectfully submit that Newlin and/or Mochizuki neither alone nor in combination teach or suggest the above-noted features of amended Claim 20.

As discussed above, both Newlin and Mochizuki describe methods and apparatuses that are generally related to the transmission of DTMF signals between telecommunication devices. Accordingly, neither Newlin nor Mochizuki, alone or in combination, teach or suggest a television receiver including a DTMF control signal reception apparatus for receiving the DTMF control signal and the audio signal to be transmitted from the television

signal transmitter, an extracting means for extracting the DTMF control signal, and a speaker configured to output the extracted DTMF control signal as a sounds wave, as recited in Claim 20, and depicted in Figs. 7 and 12.

Finally, amended Claim 20 recites, *a video/audio signal recording/reproducing apparatus comprising... DTMF tone decoder configured to receive and decode the DTMF control signal...and a control means for determining the control operation corresponding to the received DTMF sound wave signal*. Applicants respectfully submit that Newlin and/or Mochizuki neither alone nor in combination teach or suggest the above-noted features of amended Claim 20.

As discussed above, neither Newlin nor Mochizuki describe television signal transmission systems, much less a video/audio signal recording/reproducing apparatus as recited in amended Claim 20. Thus, neither Newlin nor Mochizuki, alone or in combination, teach or suggest a video/audio signal recording/reproducing apparatus including a DTMF tone decoder configured to receive and decode the DTMF control signal and a control means for determining the control operation corresponding to the received DTMF sound wave signal received from the television signal receiver, as recited in Claim 20. The recoding/reproducing apparatus, as claimed, is described in Figs. 12 (VCR/DVR), 10 (decoder circuit), and 13 (table correlating DTMF tones with control commands) of the original drawings.

Accordingly, Applicant respectfully requests that the rejection of Claim 20 under 35 U.S.C. §103 be withdrawn.

Further, Applicant respectfully traverses the obviousness rejection based on Newlin and Mochizuki because there is insufficient evidence of motivation to modify Newlin's method of controlling a device based on a received DTMF signal by incorporating

Mochizuki's method of generating and transmitting messages using DTMF tones, for the following reasons.⁹

The outstanding Official Action states that the proposed modification would have been obvious "for the purpose of improving the transmission control signals to a particular device."¹⁰ The record, however, fails to provide the required *evidence or motivation* for a person of ordinary skill in the art to perform such a modification. While Mochizuki may provide a reason for using a sound wave to generate a DTMF tone for transmission of *message data*, Mochizuki fails to suggest why a person of ordinary skill in the art would have been motivated to incorporate such a feature in a system for receiving *control instructions* in the form of DTMF tones such as the one disclosed in Newlin. In particular, Mochizuki uses the formation of a sound wave to convert message data corresponding to a transmitted message into DTMF tones for transmissions. Mochizuki, however, does not suggest that transmitting messages of DTMF tones from a user's handheld device would work in a method for controlling the processing of a multimedia device, much less "improve the transmission control signals to a particular device" in such a system.

In addition, Newlin is not concerned with the transmission of message data using DTMF tones. Newlin states the structure therein already achieves the goal of providing a multimedia input and control for an apparatus used for multimedia communications by receiving various control signals. Newlin does not suggest that further improvement is desired, nor that another feature should be added to further improve the transmission of control signals to a particular device. In particular, Newlin does not suggest to add a method

⁹ See MPEP 2143.01 stating "[o]bviousness can only be established by combining or modifying the teaching of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art," (citations omitted). See also MPEP 2144.08 III stating that "[e]xplicit findings on motivation or suggestion to select the claimed invention should also be articulated in order to support a 35 U.S.C. 103 ground of rejection. . . . Conclusory statements of similarity or motivation, without any articulated rational or evidentiary support, do not constitute sufficient factual findings."

¹⁰ Outstanding Official Action at page 4, lines 1-2.

of transmitting communication messages between mobile devices in the form of converted sound waves, such as those disclosed in Mochizuki.

An attempt to bring the isolated teachings of Mochizuki's system into Newlin's device would amount to improperly picking and choosing features from different references without regard to the teachings of the references as a whole.¹¹ While the required evidence of motivation to combine need not come from the applied references themselves, the evidence must come from *somewhere* within the record.¹² In this case, the record fails to support the proposed modification of Newlin's system.

In rejecting a claim under 35 U.S.C. § 103, the U.S.P.T.O. must support its rejection by substantial evidence within the record, and by clear and particular evidence of a suggestion, teaching, or motivation to combine the teachings of different references. As discussed above, there is no substantial evidence, nor clear and particular evidence, within the record of motivation for modifying Newlin's device by incorporating Mochizuki's method. Without such motivation and absent improper hindsight reconstruction,¹³ a person of ordinary skill in the art would not be motivated to perform the proposed modification, and Claim 20 is believed to be non-obvious and patentable over the applied references.

¹¹ See In re Ehrreich 590 F.2d 902, 200 USPQ 504 (CCPA, 1979) (stating that patentability must be addressed "in terms of what would have been obvious to one of ordinary skill in the art at the time the invention was made in view of the sum of all the relevant teachings in the art, not in view of first one and then another of the isolated teachings in the art," and that one "must consider the entirety of the disclosure made by the references, and avoid combining them indiscriminately.")

¹² In re Lee, 277 F.3d 1338, 1343-4, 61 USPQ2d 1430 (Fed. Cir. 2002) ("The factual inquiry whether to combine references ... must be based on objective evidence of record. ... [The] factual question of motivation ... cannot be resolved on subjective belief and unknown authority. ... Thus, the Board must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the agency's conclusion").

¹³ See MPEP 2141, stating, as one of the tenets of patent law applying to 35 USC 103, that "[t]he references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention."

Consequently, in view of the present amendment and in light of the foregoing comments, it is respectfully submitted that the invention defined by Claim 20 is definite and patentably distinguishing over the applied references. The present application is therefore believed to be in condition for formal allowance and an early and favorable consideration of the application is therefore requested.

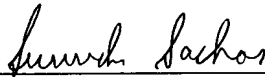
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Respectfully submitted,

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